



# NUCLEAR DIVISION NEWS

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 3 -- No. 18

Thursday, December 21, 1972

## QUESTION BOX

**QUESTION:** I am a recent retiree (with 1972 safe hours), but I will not receive a Y-12 safety award. Why are retirees penalized when they are retired before the last of the year? They helped build up the safety record but get nothing for it. This is unfair and we retirees, forced or otherwise, don't like it. The plan should be changed or cancelled.

**ANSWER:** Every program must have a set of rules which are designed to implement that particular program. One of the rules of the present safety award plan is that the employee must be on the payroll at the time the award period ends in order to be eligible for a safety award. Employees who leave the payroll as retirees, voluntarily quits, death or for any other reason have not completed the award period are not eligible for an award.

The plan is reviewed from time to time to determine if it is achieving its purpose and if it should be changed or discontinued. Your suggestion will be referred to the proper persons.

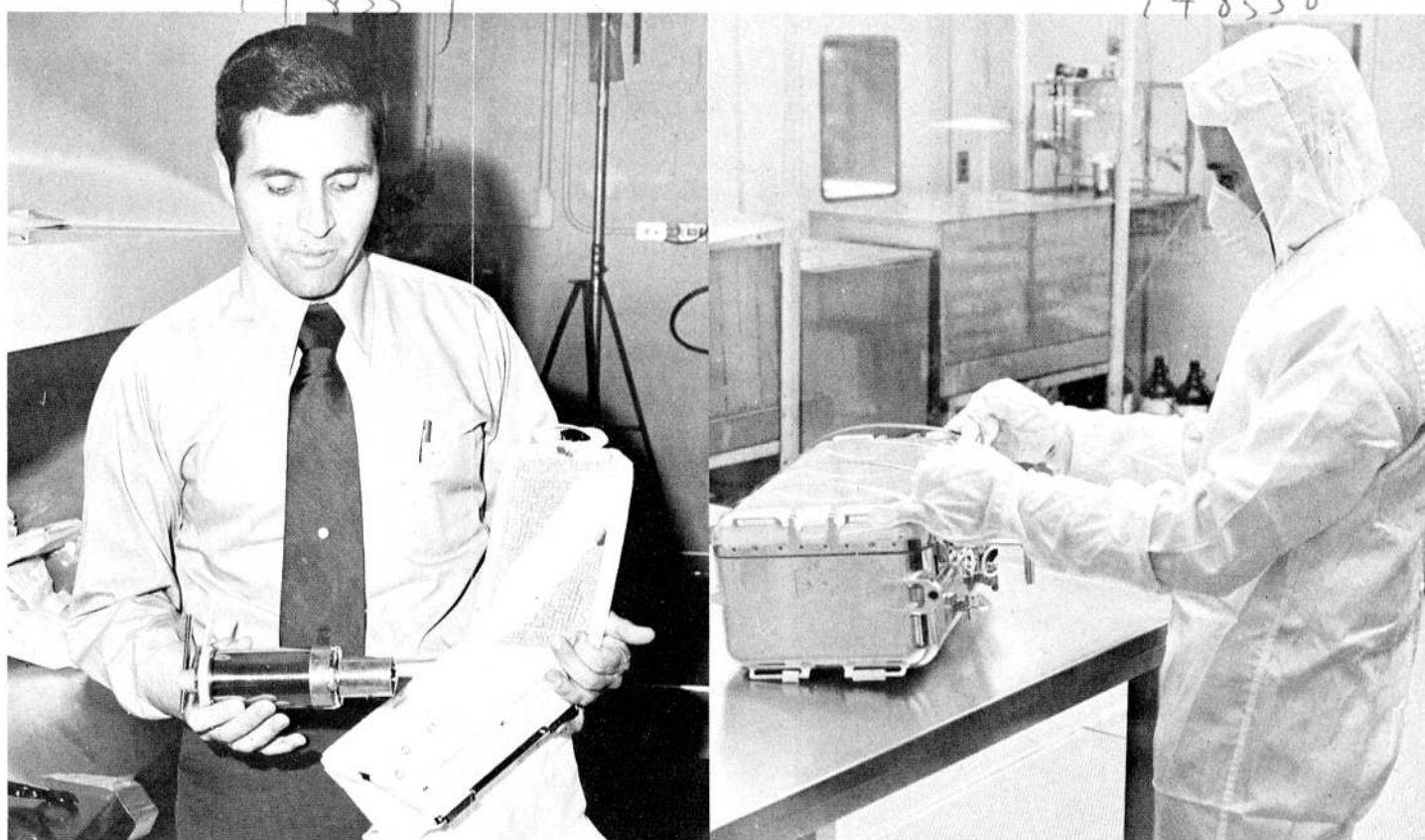
**QUESTION:** How long may an employee be ill before being given a medical discharge? Does this vary from individual to individual and from one plant to another?

**ANSWER:** An employee is considered to be absent due to a temporary disability as long as he is expected to recover in the foreseeable future. When it has been determined that he won't be able to return in the foreseeable future able to do his job, he will be given a medical termination. This determination is made jointly by supervision, industrial relations, and medical taking into consideration the opinion of the employee's physician. It is Management's intent that this matter be handled uniformly at all locations.

### MERRY CHRISTMAS! HAPPY NEW YEAR!

Two days off for Christmas. That's in store for Nuclear Division employees. For Oak Ridge employees it's Monday and Tuesday, December 25, 26; and for employees at the Paducah Gaseous Diffusion Plant, it's Friday and Monday, December 22, 25.

Another holiday will be observed Monday, January 1, the first of 1973's 10 holidays.



**ASTRONAUT PRACTICES FOR MISSION** — Harrison H. Schmitt, LEM pilot for the Apollo 17 mission, visited the Y-12 plant to practice using some of the equipment developed there. He is shown at the left placing an environmental sample container into a sample collection bag. At right he is suited out in the "clean room" working with the "moon box." Schmitt, the first scientist to visit the moon, has a Ph.D. in geology from Harvard.

## Keen interest shown locally in moon flight

Apollo 17 was of special interest to many Nuclear Division employees. Present on the flight were many items fabricated by the Oak Ridge Operations: two lunar sample return containers (commonly referred to in the Division as "moon boxes"), sample collection bags, organic samples, core sample vacuum container, 20-documented sample bags in dispensers, a special environmental sample container, and teflon sample bags. These hardware items were all designed by Y-12 and ORNL engineers, and fabricated in Oak Ridge.

Of interest, also, to many was the personal contact with Harrison H. Schmitt, LEM pilot on Apollo 17, and the first "civilian" to traverse the plains of the moon. Schmitt, who holds a Ph.D. in geology from Harvard, visited Oak Ridge facilities this year to acquaint himself with the operations of the many articles made here.

Ward E. Wampler Jr., Y-12's Product Engineering; and George Lockhart, consultant for NASA coordination, were in Houston during Apollo's stay in space.



**PRE-FLIGHT PRACTICE** — Charles E. McAlister, left, Y-12's Chemistry Development, explains some of the functions of the equipment fabricated by the Nuclear Division for use on moon explorations. Astronaut Schmitt visited Y-12 this year to acquaint himself with some of the equipment used in this historic Apollo 17 flight.



# Peace On Earth







## Y-12 PLANT

CAR POOL member from Norwood or Cherokee Ridge area, Knoxville, to any portal, straight day. E.C. Keith, plant phone 3-7615, home phone Knoxville 947-8573.

Ride wanted from Cherry Street, Woodbine area, Knoxville, to Biology Portal, straight day. Luberta Woods, home phone Knoxville 546-5256, plant phone 4-5558.

Ride wanted from Ashland-McCalla Avenue section (Chilhowee Park) Knoxville to Biology Portal, straight day. Florence Olden, plant phone 3-5397, home phone Knoxville 522-3322.

RIDE from Smithwood area, Knoxville, to Central Portal, straight day. Georgia Bower, plant phone 3-7293, home phone Knoxville 687-8014.

RIDE from Claxton area, to North Portal, straight day. T.C. Hale, plant phone 3-7558, home phone Claxton 945-3142.

## ORGDP

JOIN CAR POOL from Broadacres section, Powell, to any portal, K-25. 7:45-4:15 shift. John Hoffmeister, plant phone 3-3589, home phone Powell 947-6755.

## ORNL

TWO CAR POOL MEMBERS from vicinity of Waddell, West Outer or Pennsylvania to East or North Portal, 8:15 a.m. Tom Burnett, plant phone 3-6939, or Oak Ridge 483-1975; or Dick Reed, plant phone 3-1801 or Oak Ridge 483-3458.

RIDE from Bearden to East Portal. Alice Montgomery, plant phone 3-6905 or 3-6098.

RIDERS from Karns vicinity Ball Camp, either shift 8 a.m. or 8:15 a.m.; either portal. Neil Griffith, plant phone 3-6618, home phone Knoxville 588-9053.

*"The society which scorns excellence in plumbing because plumbing is an humble activity, and tolerates shoddiness in philosophy because it is an exalted activity, will have neither good plumbing nor good philosophy; neither its pipes nor its theories will hold water!"*

... John W. Gardner



**RETIRING DIRECTOR HONORED** — At its November meeting, the Oak Ridge Chapter of the Tennessee Society of Professional Engineers honored retiring executive director William B. Faris. Faris is shown, left, receiving the certificate of appreciation, "in recognition of dedicated service for the public welfare and the engineering profession," presented on behalf of the chapter by past TSPE president Lloyd Jones.



Paducah employees' children flock to Christmas party, December 9



## Solid state staffers attend Denver meeting

Several members of ORNL's Solid State Division participated in the 18th Annual Conference on Magnetism and Magnetic Materials in Denver last month. The Conference, sponsored jointly by the American Institute of Physics and the Magnetics Society of the IEEE in cooperation with the Metallurgical Society of AIME, the Office of Naval Research, and the American Society for Testing and Materials, is devoted to all recent developments in magnetism and its associated technology.

John F. Cooke presented an invited paper "K-Dependent Exchange and the Dynamic Susceptibility of Ferromagnetic Nickel," co-authored by Harold L. Davis.

Members of the division who presented contributed papers were: Joe W. Cable, "The Spatial Distribution of the Magnetization around Fe Impurities in  $\text{Ni}_3\text{Ga}$ ," co-authored by Harry R. Child; Child, "Temperature Dependence of Ferromagnetic Disorder Neutron Scattering from Impurities in Fe," co-authored by Cable; Davis, "Direct Measurement of Crystal-Field Splittings in  $\text{PrN}$ ," co-authored by Herb A. Mook; Ralph M. Moon, "Neutron Scattering Studies of  $^{147}\text{Pm}$ ," co-authored by Wallace C. Koehler and Child, and "Magnetic Form Factor of Samarium," co-authored by Koehler.

A. Furrer, guest scientist in the Solid State Division, also contributed two papers co-authored by his associates at the Swiss Federal Institute for Reactor Research, Dilsdorf, Switzerland.

Michael K. Wilkinson, director of the division, served as secretary of the Steering Committee of the Conference, and Cable was a member of the Program Committee.



Auerbach

## RESA names president, officers for 1972-73

The Oak Ridge Branch of the Scientific Research Society of America (RESA) has named officers for 1973. They include Stanley I. Auerbach, president; Roger J. Cloutier, vice president; and Jackson B. Davidson, secretary. New members of the admissions committee for 1972-1973 are John M. Googin, and Roy E. Thoma, who will serve along with Robert H. Kernohan, Paul M. Griffin and R.W. Stoughton.

RESA and its sister group, Sigma Xi, are honorary organizations dedicated to the encouragement of scientific research. Among its functions is the presentation of national and regionally known speakers to report on advances in science, often those in which they are participants. A program for the new calendar will be published soon.

RESA welcomes the nomination for membership of experimental scientists and engineers who have achieved outstanding research accomplishments. Nominations should be referred to Robert H. Kernohan, chairman of the admissions committee.

## AEC proposes to provide technology to companies for enriching uranium

The U.S. Atomic Energy Commission has announced the issuance for public comment of proposed new regulations which would give companies access to government technology for use in the design, construction and operation of facilities to enrich uranium for use in nuclear power plants.

"The purpose," said AEC Chairman James R. Schlesinger, "is to give full encouragement to the private sector to develop the new enrichment capacity which will be needed in the early 1980's and beyond."

(The AEC recently announced that three companies -- Bechtel, Union Carbide and Westinghouse Electric Corporations -- have issued a joint request for access to technology for use in evaluating the commercial feasibility of constructing and operating a privately-owned uranium enrichment facility in this country.)

Enriching of uranium is now performed in three AEC gaseous diffusion plants in Tennessee, Kentucky and Ohio. Enrichment is the only part of the civilian nuclear power industry not yet in private hands. Chairman Schlesinger said the Commission will complete its Cascade Improvement and Upgrading Programs to increase the capacity of the existing plants, but does not intend to build additional enrichment plants since it believes that the private sector can under-

take timely action to meet the growth in enrichment demand.

### 'Viable, competitive'

Under the proposed arrangements, the AEC would provide access to any company deemed qualified on technical and financial grounds as a potential participant in the production of uranium enrichment services or equipment. In consultation with the Department of Justice, the Commission would be willing to provide a company or consortium of companies preliminary advice as to whether a specific proposed organization or activity would appear objectional on antitrust grounds.

The Commission would also reserve the right to establish such further controls on private uranium enrichment activities as it determined to be appropriate to preclude the creation or maintenance of situations inconsistent with the antitrust laws or to foster the development and continuance of a viable competitive nuclear industry.

### Security clearances

To the extent feasible, the Commission will be prepared to enter into consultation agreements to assist access permittees in their activities directed toward the establishment of private domestic com-

(Continued on page 8)

## Copeland and Ross named to new jobs in Paducah plant's cascade operations

The Paducah Gaseous Diffusion Plant has announced the recent promotion of H. Donald Copeland and K. Allen Ross. They have been named cascade coordinators in the Cascade Operations Division.

Copeland has been with Union Carbide since November 1, 1951. He began at Paducah as a cascade operator, and was later promoted to process foreman. His latest assignment was as assistant area supervisor in Area III and IV, where he was primarily concerned with the test loop, converter conditioning facility and the C-335 building.

A veteran of the U.S. Marine Corps, Copeland lives at Mayfield with his wife Betty and their three children.

In his spare time he is a little league baseball coach, and elementary school football coach, and assistant scoutmaster and an adult Sunday school teacher.



Copeland

Ross

K. Allen Ross came with Union Carbide October 14, 1952. Prior to that time he taught at Lone Oak High School. He served two years in the U.S. Air Force.

Ross worked also as an operator in cascade operations. His most recent position was as assistant area supervisor in area I and II.

A native of McCracken County, Ross is married to the former Mary Lee Burnley. They have three sons and live on Lutes Road in Lone Oak.

Ross's avocation is as a home developer, and he is presently working on his second subdivision. He also serves as chairman of the building committee in the construction of the new Lone Oak Baptist Church.

## Ada Misk graduates from UT evening work

Ada R. Misk, secretary in the Plant and Equipment Division, recently was graduated from The University of Tennessee with a B.S. degree in business administration. All of her work was done in the evening school.

Mrs. Misk says her interest in getting a degree began 10 years ago when she earned her Certified Professional Secretary rating. Union Carbide's Educational Assistance Program was a deciding factor, also.

Mrs. Misk joined Oak Ridge National Laboratory in 1954. She and her husband live in Clinton. She is a member of the Clinton Business and Professional Women's Club, the Oak Ridge Chapter of National Secretaries Association, and the Oak Ridge Historical Society. She also teaches in the Oak Ridge evening adult education program.

### APOLLO 17 INTEREST

In connection with Apollo 17's historic flight to the moon, Fred E. Mundt, Y-12's Physical Testing, appeared on television during the flight. Mundt was guest on an early morning show on WTVK, Channel 26, answering newsmen's questions concerning Nuclear Division involvement in our space efforts. He took along prototypes of several pieces of hardware manufactured in Oak Ridge.

"Christmas is more than a time of the year... it is an attitude, a blessed state."



EXCITING — STIMULATING — Members of the faculty of Knoxville College recently visited ORNL to view some of the most unusual examples of the scientific — yet highly artistic pictures — in the Metallography group. ORNL's three groups led the world in top international awards in this field. Shown, from left, are Robert J. Gray, supervisor in the metallography section; Faye Kuehn, medical specialist at Knoxville College, and Faud Bahou, head of its art department. The artists found Gray's science "exciting and stimulating."



# DIVISION Retirees

Another even dozen Y-12ers end long careers with Union Carbide this month. They are: Paul H. Abston, Dispatching; Orville K. Bush, Area Five Maintenance; John C. Daniels, General Machine Shop; Roy Y. Dittmore, Process Maintenance; Ernestine Elam, Laboratory Development; William E. Heckert, Administrative Services in the Maintenance Division; Michael Getsi, Electronics and Electrical; Virgil Lovett, also of Electrical; Raymond L. McKinney, Buildings, Grounds and Maintenance Services; John A. Stone, Research Services; James B. Strickland, Research Services; and Hallie W. Wade, Chemical Services.



Abston



Bush



Daniels



Dittmore



Miss Elam



Heckert

Paul H. Abston, a native of Ozone, came with ORGDP in 1944 and came to work in Y-12 in 1946. He worked with the Tennessee Valley Authority before coming with Union Carbide. He lives at Route 1, Rockwood.

Orville K. Bush was born in Indiana and worked there in the grocery business in his early years. He also worked with the U.S. Post Office. He came to Oak Ridge, to work in construction in the mid 40's, and came with Union Carbide July 10, 1954. He lives at 124 Iris Circle, Oak Ridge.

John C. Daniels was born in Grainger County. A veteran of the U.S. Navy, he worked in the grocery business in Knoxville and with Brookside Mills in the early 40's. He came with Union Carbide April 27, 1951. Daniels lives at Route 2, Oliver Springs.

Roy Y. Dittmore, a native of Copperhill, served in the Navy 20 years before

coming here December 10, 1953. He lives at 300 East Fernhill Lane, Oak Ridge.

Ernestine Elam, a native of Paris, Tenn., came with Union Carbide November 4, 1965. She attended Murray State College and worked for a cosmetic firm in Paris before coming to Oak Ridge. She worked with the U.S. Engineering Division before coming to Y-12. She also worked with the Barrage Balloon Training Center in Paris during the war.

Miss Elam plans to marry during the holidays. She and her husband will live in Titusville, Fla.

William E. Heckert attended Duke University and holds a B.S. degree from St. Vincent College. He has also done graduate work at the Michigan University Extension. A native of Weston, W. Va., he came to Y-12 December 13, 1954. Prior to that time he had worked with the Michigan Chemical Corporation, Westvaco Chlorine and Houston Pipe Company.

He lives at Route 1, Kingston.



Getsi



Lovett

Michael Getsi was born in Stonega, Va., where he worked in the mines. He also worked in Inman, Va., and came to Y-12 July 24, 1943.

He presently lives at 324 East Fairview Road, Oak Ridge.

Virgil Lovett, a native of Whitley County, Ky., taught school there in his youth. He attended Cumberland College and Sue Bennett College in London, Ky.

Lovett came to Y-12 September 11, 1944, and lives at 100 Robin Lane, Oak Ridge.



McKinney



Stone

A native of Erwin, Tenn., Raymond L. McKinney worked with Tennessee Eastman and DuPont prior to coming with Union Carbide. He also worked with the Pearl Harbor Navy Yard during World War II.

McKinney lives at 102 Norris Lane, Oak Ridge.

John A. Stone, born in Benton, came with Union Carbide November 5, 1947. He was with Tennessee Eastman, Reynolds Metal Company and Greenback Industries before coming here.

He lives on Beaver Creek Drive, Knoxville.



Dr. Sullivan

Charles R. Sullivan Jr., M.D., medical director at Y-12 for the past 22 years, will retire at the end of this month.

A native of Pittsfield, Mass., Dr. Sullivan holds an A.B. from Colgate University and was graduated from Albany Medical College in 1935. He was in private practice in Pittsfield until 1941 when he enlisted in the U.S. Medical Corps, serving in the Pacific area during World War II. He first came to Y-12 as a staff physician in 1946, and from 1947 until 1950, was with Armstrong Cork Company.

Mrs. Sullivan is the former Mary Elizabeth Wood. They live at 112 Maple Lane, Oak Ridge. Their married daughter, Suzie Hignite, lives in Elizabethtown, Ky.

The Sullivans plan to remain in Oak Ridge.

## TAT college courses registration Jan. 3

Registration for the college courses to be taught by Roane State Community College in Y-12's Training and Technology building 9709 will take place Wednesday, January 3, after 5 p.m.

The registration there is only for courses to be offered in the Y-12 area. Other Roane State courses must be registered for at the college site near Harri-



Strickland



Miss Wade

James B. Strickland was born in Cloudland, Ga. He came with Tennessee Eastman in Y-12 in 1943 and returned again in 1950. He was in the plumbing and pipefitting business in Chattanooga and Savannah, Ga.

Strickland lives at Route 3, Oliver Springs.

Hallie W. Wade was born in Jonesville, Va. She worked with Tennessee Eastman in Kingsport and the Sloat and White Canning Co., Whitesburg, Tenn., before coming to Y-12 May 15, 1951. Miss Wade lives at Route 20, Knoxville.

## Foreign travel

John W. Michel presented "Nuclear Desalination" at a seminar at the Pakistan Atomic Energy Commission in Karachi, Pakistan, on November 27. Michel is director of the Agro-Industrial Complex Study and associate director of the Nuclear Desalting Program.

Klaus Becker, Health Physics Division, will serve as a consultant in radiation protection for the World Health Organization in Columbia, Chile and Argentina during December.

Paul S. Rohwer, Environmental Sciences Division, presented "The Relative Risks from Radioisotopes Found in Nuclearly Stimulated Natural Gas" at the Third International Atomic Energy Agency Plowshare Nuclear Explosives Panel in Vienna, Austria, November 27-December 1.

V.R.R. Uppuluri, Mathematics Division, will present a paper at the Diamond Jubilee meeting of the Indian Science Congress in Chandigarh, India, January 3-9, 1973.

Cloyd O. Beasley Jr., Thermonuclear Division, will visit the Max-Planck Institute in Germany during the early months of 1973 for consultations on calculations of instabilities in inhomogeneous plasmas and studies to investigate the effects of Landau damping on trapped-particle instabilities in TOKAMAK.

Jere P. Nichols, Chemical Technology Division, was a participant in the IAEA/ENEA Symposium on the Management of Radioactive Wastes from Fuel Reprocessing Plants in Paris, France, November 27-December 1. Later he presented a lecture on ORNL developments in fuel reprocessing and waste management at the Hahn-Meitner Institute in Berlin, Germany.

Martin S. Lubell, Thermonuclear Division, will visit laboratories in West Germany and Switzerland during December where work in controlled fusion is being conducted.

Ferruccio Gera, Chemical Technology Division, participated in a panel of the International Atomic Energy Agency on the Creation of International Repositories for the Storage of High-Level and Alpha-Contaminated Wastes in Vienna, November 20-24 and the Symposium on Management of Radioactive Wastes from Fuel Reprocessing in Paris, November 27-December 1.

## NUCLEAR DIVISION NEWS



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## Nuclear Division deaths

Benjamin Tsen-Man Loh, ORNL's Metals and Ceramics Division, died December 5, at an Oak Ridge hospital.

A native of Taiwan, Mr. Loh came with Union Carbide shortly after his graduation from Rensselaer Polytechnic Institute. In addition to his Ph.D. from RPI, he also held B.S. and M.S. degrees from Cheng Kung University in Taiwan.

Survivors include his wife Mrs. Sarah Chang Loh, 109 Nebraska Avenue, Oak Ridge; two sons, Chester and Cliff; a daughter, Christina; his parents Mr. and Mrs. Kee Loh of Hong Kong; and his father-in-law, May Sun Chang.

Funeral services were held at Weatherford's Mortuary with the Rev. William Pollard officiating. The body was cremated. The family requested that any memorials be in the form of donations to the American Cancer Society.

Horace M. Branson, a production operator in Y-12's Beta Four Forming, died in an automobile accident December 5, near Knoxville. Mr. Branson, a native of Strawberry Plains, had worked in Y-12 on three different times. He last hired in during April of 1959.

He is survived by his wife, Mrs. Pearl Branson, College Lane, Strawberry Plains; a son, Horace; two brothers, Charles D. Branson and John P. Branson; a sister, Mrs. Frankie Potts; and a half-sister, Mrs. Bessie Littlefield.

Funeral services were held at McCarty Mortuary Chapel, Knoxville, with the Rev. William Blevins officiating. Burial followed in the Holston View Memory Gardens.

Willie L. McCormick, Y-12's Fabrication Division, died December 12, at a Knoxville hospital. He had been with Union Carbide since October, 1951.

Survivors include his wife Mrs. Betty McCormick, 4801 Green Meadow Lane, Knoxville; daughters, Patricia Baker and Shirley Payne; son, David McCormick, a student at Tennessee Tech; and his mother, Mrs. Ida McCormick. Four grandchildren also survive.

Funeral services were held at Rose Chapel, Knoxville, with interment at Greenwood Cemetery.

Harvey A. Bernhardt Jr., ORGDP development division, died at his Oak Ridge home December 6, from a heart attack. A native of Salisbury, N.C., Mr. Bernhardt came here in 1944 after working with Union Carbide in New York. He graduated from Catawba College, N.C., and received his Ph.D. from the University of North Carolina.

He is survived by his wife, Mrs. Mildred Angle Bernhardt, 105 Norton Road, Oak Ridge; a daughter, Mrs. Catherine Saylor Hancock; and a grandson, Phillip Gregory Hancock.

Funeral services were held at Grace Lutheran Church with the Rev. Harry Lorenz officiating. Burial was in Oak Ridge Memorial Park.

The family has requested that any memorials be in the form of gifts to the REgional Mental Health Center of Oak Ridge, or the Daniel Arthur Rehabilitation Center.



Mr. McNabb

Wade N. McNabb, Paducah Plant Process Operations, died November 17, at the Western Baptist Hospital in Paducah. A native of Murray, Ky., Mr. McNabb came with Union Carbide in 1952.

Survivors include his wife Mrs. Dove Anna McNabb, Route 7, Paducah; and a son, Leland McNabb.

### RETIREE SCHIMMEL DIES

Fred A. Schimmel, former development consultant at the Y-12 Plant, died at his home in Karlsruhe, Germany, recently. Schimmel worked at ORNL from November 1, 1952, until March, 1956, when he transferred to Y-12's Development Division. He had been retired since May, 1966.

### RETIREE BAKER DIES

Homer C. Baker, retired stockkeeper from Y-12, died December 5, at St. Mary's Hospital, Knoxville. He had been ill for some time with cancer. A native of Van Buren County, he lived at Clinton at the time of his death. His wife, mother, and a son survive.

### FORMER CHEMICAL OPERATOR DIES

Wilmer A. McNair, former Chemical operator in the Y-12 Plant, died December 4, in the Oak Ridge Associated Universities Hospital, from cancer. A native of Cochran, Ga., Mr. McNair was given a medical retirement last fall, after working more than 25 years. He is survived by his wife, three daughters and four sons.

## DIVISION Retirees

72 2384 72 2454



Jarvis

Rutherford



Walker

Homer F. Jarvis, Grove M. Rutherford, and John F. Walker retired from the Oak Ridge Gaseous Diffusion Plant at the end of this year.

Jarvis, an operator in Utilities, came with Union Carbide June 12, 1945. He retires to his 706 West Outer Drive, Oak Ridge, home.

Rutherford, a stores clerk in Finance and Materials, lives at 133 Goucher Circle, Oak Ridge. He came with ORGDP April 14, 1945.

## F. R. Sanders named foreman at ORGDP



Sanders

Fred R. Sanders has been named a foreman in the development maintenance department of the Fabrication and Maintenance Division at the Oak Ridge Gaseous Diffusion Plant.

A native of Nashville, Sanders, attended The University of Tennessee. He served in the U.S. Army Signal Corps before coming to ORGDP in 1945.

His wife is the former Ruby Millsaps. They live at Route 1, Lenoir City, and have two children, Mrs. John C. Forster, who teaches at Eaton School, Lenoir City; and a son, A/1C Fred D. Sanders, stationed in Thailand.

He enjoys trout fishing and hunting in his spare time.

Walker, a refrigeration mechanic in Fabrication and Maintenance, is also an old-timer. He came with Union Carbide June 9, 1944, and lives at 802 Walnut Street, Knoxville.



## "Put It In Writing"



**WRITING COURSE OFFERED** — The Paducah Plant Training Department is offering a 10-hour program designed to teach employees to write faster, with clarity, and in a way that persuades the reader. Simplicity and organization are emphasized in writing reports, letters and memos. Video tape, along with other material, is used. The course is voluntary. Paul Wood, Paducah Community College English department, is conducting the course at the plant site after normal working hours. There is no cost to employees.

### NUCLEAR DIVISION SAFETY SCOREBOARD

Time worked without a lost-time accident through December 14:

Paducah .....	66 Days	434,000 Man-Hours
ORGDP .....	66 Days	895,000 Man-Hours
ORNL .....	3 Days	78,801 Man-Hours
Y-12 .....	45 Days	1,650,000 Man-Hours

**Safety is everyone's concern!**

### Next Issue

The next issue will be dated Jan. 4.  
The deadline is December 27.





## SPORTS NOTES



**TURKEY SHOOT** — Y-12 shift-folks enjoy a recent turkey shoot, despite the rain that came to Tennessee during early December.



**SHARPSHOOTERS** — Carolyn Lee, left, and Donna Adcock, fire in a recent shift turkey shoot.

### Y-12 BOWLING

In the Classic League, the Has Beens and Eightballs are locked in tie for first place, with the Markers only one point away, as the season's first half nears its end. Bill Ladd, Eightballs, continues to spark the league, rolling a 275 single game, 688 series, recently, both scratch scores, of course!

The Rollers command a one-point lead in the Y-12 Mixed Bowling League, out in front of the Hits & Misses as the Friskies stand three out of first place, with this week's final night of rolling in the first half. Bill Patrick, Alley Cats, rolled a 695 handicap series during the latter days of the season's first half.

The Rounders still hang onto a rather substantial lead in the C League race, taking four from the Cobras recently. They are four points ahead of the Badgers

and Parbusters, who are tied for second place. The Royal Flush recently put a 3049 series on the record books.

### ORGDP BOWLING

The ORGDP Women's Bowling League sees the Pay-Offs still standing tall, four in front of the Up-Towners. Marilyn Canterbury rolled a 199 scratch game, recently, a 232 handicap single.

The Tuesday League sees the All Stars up there still. P.E. Clabough rolled a 227 scratch, 251 handicap game recently. The All Stars hold the highest series thus far, a 3132, hard to beat by any team!

The Wednesday League puts the Planers in the driver's seat, two ahead of the Rookies. Fred Johnson rolled a rocking 229 recently... Jack Bolen put a 639 series up before the crowd... both scratch scores!



**PADUCAH GOLF WINNERS** — Winners of the golf league championship at Paducah, a mere nine points ahead of the Proxies, line up with their prizes. From left are Tom Lanham, Carl Ecklund, Jim Lawson, Steve Polston, Max Glenn, Clovic Green, Tony Dean and Bill Longton. Captain Archie Miller was not present for the picture.

### ORNL TURKEY SHOOT

ORNL's straight evening shift held a turkey shoot last month at the O.J. Harmon place on Mehaffey Road. Winning turkeys were Herbert Booker, Boyce Boyer, Alvin Bradley, Willie Dye, Walter Elkins, Carl Golden, Josh Griffin, Beryl Justice, Eddie Walker, Roy Webber, William Blocker, Robert Carney, David Everett, J.C. Grove, Oscar J. Harmon, Albert Hawkins, Matthew Mills, Charles Mounger and Audrey Smith. Paul Nelson won the door prize, a fishing rod.

B Shifters also chose the Harmon farm for their big turkey shoot. Only two firers went away without "big birds." Winning holiday feasts were Wofford Akers, Rubin Arnwine, William Beckner, Neal Browder, Emmitt Brown, Moss Brown, William Carter, William Clifton, James Dixon, Edward Elliott, James Fine, Wilber Finnell, John Fleenor, Richard Malcolm, William McKnight, John Miller, Paul Pair, Forrest Schmollinger, Eugene Smith, Harvey Smith, William Smith, Woodford Spencer, Charles Thomas and Hugh Watson.

## Company Service

### Y-12 25 YEARS

Lee F. Kennedy and Loyd N. Wakefield.

### 20 YEARS

Arvil L. Skaggs, Melvin T. Warwick Jr., Simeon W. Swicegood Jr., Kenneth A. McTeer, Glynn W. Watson, Herb A. Poho, Wayne J. Dawson, Emmett J. Walker, Albert A. Stooksbury, Roy K. Holbert, James C. Parton, Elbert K. Cochran, Oden N. Copenhaver and Edward D. Allen.

### ORGDP 25 YEARS

Raymond M. Wolfenbarger.

### 20 YEARS

Otis J. Baker, Lloyd Hunt, Martin F. Chandler, Lawrence B. Howerton and Paul H. Setzer.

### PADUCAH 20 YEARS

Rob M. Wilson, Raymond Wallace, Harold Faulds, James F. Goodman, William J. Arnzen, Charles W. Edwards, Betty M. Brown, Vernon C. Douglas, James C. McDaniel, Herbert E. Vied, James W. Thompson, Emmitt V. Jackson, James E. Kelley, Millard H. Cloyd, Thomas H. Watson, John E. Ross, Eugene A. Waggoner, and Harold A. Wetton.



**HOMECOMING QUEEN** — Flashing the smile that helped win her the title, Queen Mona Tate is seen at the 1972 Paducah Tilghman High School Homecoming. Miss Tate is the daughter of Dean Tate, Paducah's Planning and Technical Support Division. She plans to enter the University of Kentucky next year. They live at 4640 Buckner Lane, Paducah.

### ORNL BOWLING

The Mousechasers, familiar with top standings, holds the lead in the ORNL Ladies Bowling League, two and one-half ahead of the Picks-Ups. Sally Stockstill rolled a 232 game about two weeks ago to help her team hold its second place.

The A League holds the Ten Pins, exactly 10 points ahead of ORAU. The Pockets' G.M. McNabb rolled a 216 scratch game early in December, and the Late Comers' Shoemaker rolled a 253 handicap single.

The C League, rolling on Wednesday, sees the perennial favorites, the Remkey's way out, almost out of reach.

The E League has the Guttersnipes and Woodchoppers tied, both three ahead of the Limits.



# Is tuberculosis contagious?

(Editor's Note: Dr. Lincoln has begun answering health questions from employees. Questions are handled in strict confidence, as they are handled in our Question Box. Just address your question to "Medicine Chest," c/o NUCLEAR DIVISION NEWS, Building 9704-2, Stop 20, or call the news editor in your plant, and give him your question on the telephone.)

By T. A. Lincoln, M.D.

Whenever a case of tuberculosis occurs, the patient's fellow workers and car pool members become apprehensive about its contagiousness. Are they likely to catch the infection? What should they do?

Tuberculosis is not contagious like many virus diseases such as influenza or measles. Tuberculosis occurs and spreads in a special fashion and unless this is understood, there will be much confusion.



When the tb bacteria (tubercle bacilli) are inhaled into the lung, they can be implanted only in the tiniest bronchioles or the air sacs themselves. If they fall onto the sticky mucus layer which lines the bronchial tubes, they will be

swept up to the throat, where they will be swallowed and eliminated. As a consequence, the first or primary infection usually occurs in the air sacs near the surface of the lung in the lower lobes.

The body takes awhile to mobilize its defenses. After several weeks an allergy to the bacteria develops, which causes a vigorous local inflammatory reaction. Unfortunately, before the infection is completely surrounded and walled off, a few bacteria may escape into the blood stream. They, in turn, are frequently deposited in the tops of the lungs where the higher oxygen tension favors their growth. If a person's immune response is seriously impaired, the primary infection may spread rapidly, producing miliary tuberculosis or tuberculous meningitis, both of which can be rapidly fatal.

## Older people vulnerable

The sites of the primary infection heal, but tubercle bacilli often remain alive within them. It is these live bacilli which are dangerous and remain a potential threat throughout the life of the individual. Most cases of adult tuberculosis which occur today are the result of the breakout of these old bacilli and not as the result of reinfection from a new outside source. Fortunately, only about 1-2% of cases of primary tuberculosis break down.

People who are vulnerable to develop tuberculosis are those who have alcoholism, silicosis, diabetes, or malnutrition, those who take cortisone over long periods of time and those who have had their stomachs removed. The aged, especially if they have some chronic illness, are the chief source of new cases at the present time.

The tuberculin skin test is positive as the result of the allergy which occurred to control the primary infection. A person with a positive skin test has live tubercle bacilli living in his body. If his health is otherwise vigorous, he has protection against new bacilli which he may breathe. He tolerates his old bacilli by

keeping them locked up in fibrous scar tissue called Simon foci.

## Skin test value

BCG vaccination has been used in many countries to immunize against tuberculosis. Unfortunately, it has not been universally effective because the vaccine is not always potent and it eliminates the valuable tuberculin skin test for diagnosis. Dr. J. Arthur Meyers, from the University of Minnesota, vigorously opposed the widespread use of BCG in this country during the 1940's because he felt that the skin test would be more valuable in the long run. When live BCG tubercle bacilli are used, primary lesions are produced, which causes the skin test to convert to positive. In many northern states, the percentage of the young population who have a positive skin test is sufficiently low (less than 25 percent) to make it an exceptionally valuable test. In some areas of the south-eastern states and in ghetto areas of big cities, over 25 percent of adults will be positive. Potent BCG vaccine is now occasionally used for people who run a high risk of tuberculosis infection.

A positive test means that at some time a primary infection with tuberculosis occurred. The test gives no indication when. It could have occurred six months or even 35 years ago. If a person had previous negative skin tests and then becomes positive, the time of the primary infection can be estimated and treatment with isoniazid started. When the time of conversion from negative to positive cannot be estimated, only those with strong positive reactions or those with special vulnerability need to be treated.

## Battle not over

People who have been exposed should have a chest x-ray and a skin test unless they already know they are positive. A person with a previous positive skin test does not need to be concerned about a new external exposure but, of course, needs to watch his own health to prevent breakdown of his Simon foci. Good nutrition, adequate rest, and exercise plus periodic chest x-rays are his best protection.

Christmas is the season of Christmas seals and renewed interest in the fight against tuberculosis and respiratory diseases. Although tuberculosis has been declining for many years and effective treatment is now available, the battle is far from won. The most important problem is the detection of the infrequent case. It is not unusual for cases of tuberculosis to go many months unsuspected, especially in the aged. Anyone with a persistent cough, regardless of other factors already known, such as smoking, chronic bronchitis, etc., must have periodic chest x-rays. Eliminating this disease will require not only effective treatment, but eternal vigilance, so new cases can be found before they expose hundreds and give them primary infections.



VACATION LITERATURE — Sue Martin, right, Recreation Department, issues vacation literature to Ruthelma Woodfin as Lovetta Thomas looks on from left. The Recreation Department, in 9711-5, Y-12, has literature from all 50 states and other places of interest. This literature is available to all employees, just for the asking.

## Recreation Department offers aid to vacationers to all 50 states!

How about a trip to Samoa? Or to North Dakota for a winter's visit? Or to the Astrodome for the Bluebonnet Bowl to see Tennessee play LSU?

The Recreation Department can fix you up with literature for all those exotic places, including downtown information on Houston, where to eat, where to stay, etc., etc.

All you have to do is give them a ring at 3-5833... or drop by and see them at Building 9711-5 in Y-12, just beneath the Cafeteria. They'll be glad to help you find a food hotel in Houston for that Bluebonnet Bowl game, or fix you up with a

front row seat at the Grand Canyon, or a reservation to the moon in the year 2000!

They have some exciting folders to provide many exotic vacations. Drop by to see them.

## SMALL BORE RIFLE LEAGUE

ORNL's Frank Barnes fired high recently, with a 372; followed by Dick Spurling, Y-12, 363; Will Davy, ORNL, 355; and Edward Johnson, Y-12, with 342. Barnes' 378 is high-to-date.

## ALL CARBIDE BOWLING

The Sasa's move further out front in the Carbide Family Mixed League, rolling Friday nights. They are seven in front of the Oops.

"No person has the right to do that, which if everyone did, would destroy the purpose for which it was intended."

... Anonymous



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## CALENDAR of EVENTS

### TECHNICAL

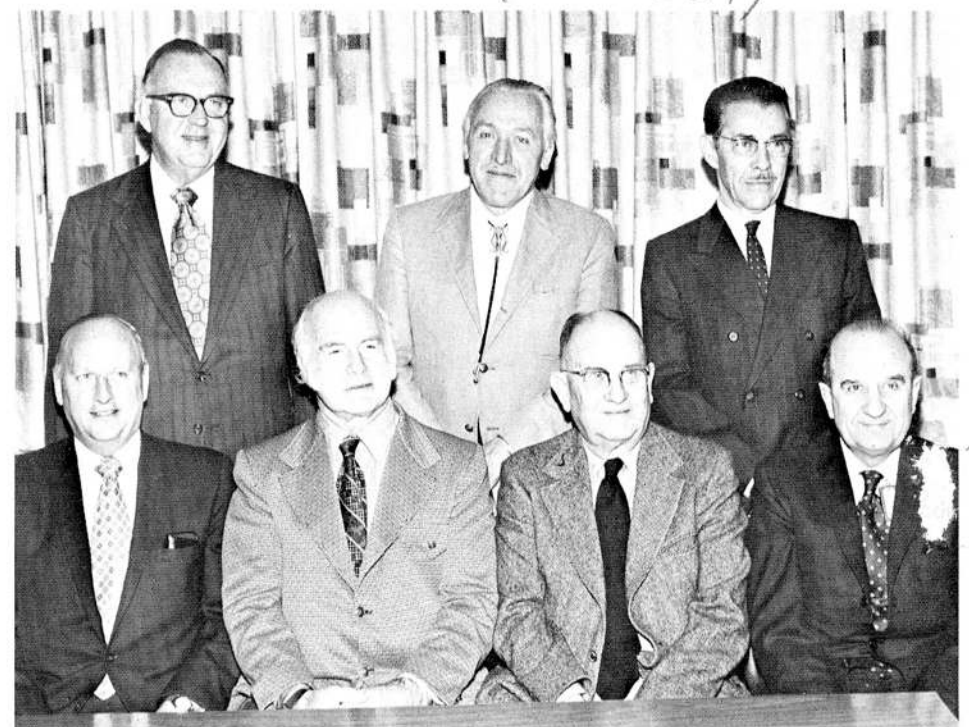
January 3

Chemical Technology Division Seminar: "Thermal Conductivity Sheared Prototype LMFBR Fuel," S.D. Clinton and H.W. Godbee. Central Auditorium, Building 4500N, 3 p.m.

### Four are Eagle Scouts

Four Oak Ridge youths, all sons of present or past Carbide employees, were awarded the rank of Eagle Scout at a ceremony held this month at the First Baptist Church in Oak Ridge.

Roger Melroy, son of P.E. Melroy, ORGDP; Scott Williams, son of Charles Williams, Mathematics Division of ORNL; and Scott and Kirk Stradley, sons of J. Grant Stradley, formerly of Y-12, were the young men so honored.



**REVIEW COMMITTEE** — The U.S. Atomic Energy Commission's Committee of Senior Reviewers met recently in Oak Ridge. Seated from left are Paul R. Vanstrum, newly appointed chairman, vice president of the Nuclear Division of Union Carbide; E.C. Creutz, National Science Foundation; Warren C. Johnson, consultant, retired from the University of Chicago; and Charles L. Marshall, from the AEC's Washington Office. Standing are R.W. Henderson, Sandia Corporation; J. Carson Mark, Los Alamos Scientific Laboratory; and Eugene H. Eyster, also of LASL.

### AEC PROPOSES

(Continued from page 3)

mercial enterprises for uranium enriching or the manufacture of enriching equipment. The consultation services would be provided by personnel of AEC operating contractors and would be available to the private firm or firms on a nondiscriminatory and reimbursable basis.

Anticipating that the proposed new regulations will become effective in the near future, the Commission is prepared to begin processing a reasonable number of applications for individual security clearances from companies which plan to seek access. The cost of such advance processing will be borne by the requesting organization.

### SOCIAL SECURITY MEDICARE

Effective January 1, 1973, the tax contribution rate is increased to 5.85 percent and the taxable wage base is increased to \$10,800. This means that the tax paid by employees earning \$10,800 or more in 1973 will increase from \$468 in 1972 to \$631.80 in 1973. This amount will also be matched by Union Carbide for each employee making a total tax per employee of \$1,263.60 in 1973, up from \$936 paid this year.

## W. R. Gall receives ASME Taylor medal

William R. Gall, engineering consultant to ORNL's General Engineering Division, was the recipient of the J. Hall Taylor Medal last month at the annual winter meeting of the American Society of Mechanical Engineers in New York City. Conferred upon Gall at the President's luncheon, November 27, the medal is awarded for "distinguished service or eminent achievement in Codes and Standards pertaining to the broad fields of piping and pressure vessels which are sponsored or undertaken by ASME."

Gall, who has been associated with the Laboratory's nuclear reactor program since 1944, contributed to the design of seven experimental and research reactors built at Oak Ridge. In recent years he has devoted his efforts to engineering studies for evaluation of advanced gas cooled nuclear power plants, gas cooled fast reactors, steam cooled fast breeder reactors and the siting of large scale nuclear desalination plants.

In the selection of Gall to receive the medal, he was cited for "his judicious leadership and steadfast devotion to the development of a code for nuclear piping in which his broad background of knowledge in nuclear engineering and sensitivity to the engineering practicalities of piping manufacture, fabrication, and installation have contributed to the rapid evolution of a code suited to the unique safety considerations of nuclear reactor systems."

Born in Portland, Ore., Gall spent his childhood in Rogersville, Tenn., where he completed high school. He earned the B.S.M.E. from The University of Tennessee, and the M.Eng. from Yale. He lives with his wife Edith at 103 Antioch Drive in Oak Ridge. Their four children are grown.

*"Initiative is the most important single force in the development of an individual, company, or nation."*

Neil H. McElroy



Jorge Salavisa

### COMMUNITY

December 22

Christmas parties for children of Oak Ridge Union Carbide employees: 9 and 11 a.m., 1:30, 3:30 and 5:30 p.m. Oak Ridge High School.

December 28

The Oak Ridge Civic Ballet Association presents "Cinderella" with guest artist, Jorge Salavisa. Oak Ridge High School Auditorium, 2:15 p.m. Other performances, December 29 and 30, 8:15 p.m.

